Part 2 -- Remarks

Please enter this First Amendment after Second RCE prior to examination of the above identified application.

Claim 1 has been amended to recite that the nonuniform dopant concentration profile continuously increases with increasing depth of the doped region starting from the diode junction and continuing to a peak concentration region at the deepest portion of the doped region.

Neither Kasahara or Takemura disclose or appear to suggest dopant concentration profiles that continuously increase with increasing depth from the diode junction to a peak concentration region at the deepest portion of the doped region. The dopant profiles of Kasahara and Takemura have dopant profiles that increase with increased depth and then decrease with increased depth. Accordingly, since neither Kasahara nor Takemura disclose or appear to suggest all of the subject matter required in amended claim 1, Kasahara and Takemura do not anticipate amended claim 1.

Since claims 3 and 5-7 depend directly or indirectly from amended claim 1, claims 3 and 5-7 should be patentable in conjunction with amended claim 1.

The examiner is encouraged to telephone the undersigned to resolve any issues which will advance the examination of this application to issue.

Respectfully submitted,

Date: 6-29-04

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